

# FitQuest: Does an active mobile phone game encourage children to take more exercise at school?

<b>Submission date</b> 23/02/2015	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 04/03/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 04/04/2023	<b>Condition category</b> Other	<input checked="" type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Physical activity has important health benefits for children, but many children do not meet recommended guidelines for the amount of physical activity they take each day. The purpose of this study is to investigate whether an active smart phone game (called FitQuest) which involves running in a playground can motivate children to become more enthusiastic about exercising, and whether that enthusiasm might change their behaviour.

### Who can participate?

Year 7 pupils attending a state-funded primary school in Edinburgh, Scotland.

### What does the study involve?

Schools are randomly allocated to one of two groups: Exergame group or no exergame group. Pupils from the schools in the exergame group play the FitQuest game during Physical Education lessons in their school for five weeks. Pupils from the schools in the no exergame group take part in the normal Physical Education classes as provided by the school.

### What are the possible benefits and risks of participating?

The potential benefits are improvements in confidence towards exercise and possibly increased levels of physical activity. The potential risks are very low - minor risk of tripping and falling similar to any out of door Physical Education class.

### Where is the study run from?

Selected Edinburgh primary schools were invited to take part by development officers within Edinburgh City Council.

### When is the study starting and how long is it expected to run for?

From May 2013 to May 2014.

### Who is funding the study?

Funded by an Engineering and Physical Sciences Research Council

(EPSRC) Impact Acceleration Account at Heriot-Watt University. Note that the Principal Investigator has now moved to University of Edinburgh.

Who is the main contact?

Dr Judy Robertson

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### **Study website**

[http://judyrobertson.typepad.com/judy\\_robertson/data-for-exergame-for-childrens-activity-rct-and-qualitative-study-paper.html](http://judyrobertson.typepad.com/judy_robertson/data-for-exergame-for-childrens-activity-rct-and-qualitative-study-paper.html)

## **Contact information**

### **Type(s)**

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## **Additional identifiers**

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

## Study information

### Scientific Title

A cluster randomised trial and qualitative study of the effectiveness of a location-based exergame on school children's physical activity

### Study objectives

Participants who use FitQuest (an exergame) for a 5 week intervention (for one hour per week during Physical Education lessons) will have increased step count, time spent in MVPA and self-efficacy scores post-test than participants who take part in normal Physical Education lessons as provided by the school.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

This study was approved by the School of Life Sciences Ethics Committee at Heriot-Watt University, Scotland on 04/09/13. Written permission to conduct a study in the schools was given by Edinburgh City Council, Scotland (25/06/2013).

### Study design

Single centre interventional trial with a cluster randomised control design

### Primary study design

Interventional

### Secondary study design

Cluster randomised trial

### Study setting(s)

School

### Study type(s)

Prevention

### Participant information sheet

[http://judyrobertson.typepad.com/judy\\_robertson/data-for-exergame-for-childrens-activity-rct-and-qualitative-study-paper.html](http://judyrobertson.typepad.com/judy_robertson/data-for-exergame-for-childrens-activity-rct-and-qualitative-study-paper.html)

### Health condition(s) or problem(s) studied

This study is about the promotion of sustained physical activity in children.

### Interventions

Participants in the intervention arm played an exergame for one hour per week during Physical Education Lessons. Control arm participants took part in the normal Physical Education classes as provided by the school.

### Intervention Type

## Behavioural

### Primary outcome measure

1. Step count (as measured by NL1000 accelerometer)
2. Minutes spent in MVPA (as measured by NL1000 accelerometer)
3. Self-Efficacy for physical activity, as measured by Pender questionnaire

All measures will be taken in the weeks immediately before and after the intervention (or equivalent time elapsed for control)

### Secondary outcome measures

Qualitative data will be gathered from interviews with children, teachers. Observation notes will be recorded at each session.

### Overall study start date

01/05/2013

### Completion date

01/05/2014

## Eligibility

### Key inclusion criteria

1. Primary seven pupils (usually aged 10-11)
2. Attending a state-funded primary school in Edinburgh, Scotland.
3. The school head teacher and PE must have agreed to take part.
4. Both male or female participants are eligible

### Participant type(s)

Other

### Age group

Child

### Lower age limit

10 Years

### Upper age limit

11 Years

### Sex

Both

### Target number of participants

10 clusters (5 intervention, 5 control), 30 participants per cluster.

### Key exclusion criteria

Lack of parental consent

### Date of first enrolment

01/06/2013

**Date of final enrolment**

01/09/2014

## **Locations**

**Countries of recruitment**

Scotland

United Kingdom

**Study participating centre**

**Heriot-Watt University**

Earl Mounbatten Building

Heriot Watt University

Edinburgh

United Kingdom

EH14 4AS

## **Sponsor information**

**Organisation**

Heriot-Watt University

**Sponsor details**

Research Enterprise Services

Riccarton Campus

Edinburgh

Scotland

United Kingdom

EH14 4AS

**Sponsor type**

University/education

**ROR**

<https://ror.org/04mghma93>

## **Funder(s)**

**Funder type**

Research council

**Funder Name**

Engineering and Physical Sciences Research Council

## Results and Publications

**Publication and dissemination plan**

The results of the cluster RCT and qualitative study will be submitted to Public Library of Science

**Intention to publish date**

01/04/2015

**Individual participant data (IPD) sharing plan**

Not provided at time of registration

**IPD sharing plan summary**

Other

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	22/08/2016		Yes	No
<a href="#">Dataset</a>	FitQuest Qualitative DataSet	09/05/2016	04/04/2023	No	No